

REMARKS/ARGUMENTS

Claims 1, 3 and 5-15 and 21-23 are active. Claims 16-20 have been withdrawn from consideration, but have been amended for clarity in case of possible rejoinder. Claims 1 and 2 have been amended to add the term "isolated or purified". A concentration limitation has been added to Claim 11. Claim 12 has been restricted to a "milk product". New Claims 21-22 find support in the specification at page 11, lines 18-19 and on page 13, last two lines, as well as in Fig. 8. The negative limitations in Claim 23 find support on page 12, lines 15-16, page 13, lines 5-13 and lines 30-31. Accordingly, the Applicants do not believe that any new matter has been introduced. Favorable consideration is requested.

The Applicants thank Examiners Young and SPE Wilson for the courteous interview of April 11, 2003. It was suggested that the Applicants limit the claims to a particular type of  $\beta$ 1, 3-1, 5 glucan produced by strain FERM P-18099. The Examiner has also agreed to reconsider the prior art rejections of Claims 8-15 if they were amended to refer to particular products not suggested by the prior art (see new Claims 22 and 23). It was also suggested that the specification and claims be amended for clarity by replacing the term " $\beta$ 1.3-1.5 glucan" with  $\beta$ 1,3-1,6 glucan. It was indicated that the rejection under 35 U.S.C. § 101 could be addressed by adding the term "isolated or purified" to Claims 1 and 2. The Applicants have now amended the claims in accordance with the Examiner's suggestions. Favorable consideration is respectfully requested.

Election/Restriction

The Applicants note that the prior restriction requirement has now been made final. Upon an indication of allowability for the elected subject matter, the Applicants request the rejoinder of nonelected method claims which depend from or otherwise incorporate the limitations of any allowable product claims. See MPEP 821.04.

Information Disclosure Statement

The Applicants will consider citing the references in the specification on an information disclosure statement.

Specification

The specification was objected to for use of the term " $\beta$ -1.3-1.6-glucan". Upon an indication of allowable subject matter, the Applicants will revise the specification as necessary for clarity.

Claim Objections

Claims 1-15 were objected to for use of the term " $\beta$ -1.3-1.6-glucan". The claims have now been revised to use terminology suggested by the Examiner. Accordingly, this objection is now moot.

Rejection – 35 U.S.C. § 101

Claims 1 and 2 were rejected under 35 U.S.C. § 101 as being directed to nonstatutory subject matter. The Applicants submit that this rejection is moot in view of the amendment of these claims as suggested by the Examiner to add the term "isolated or purified".

Rejection – 35 U.S.C. § 112, Second Paragraph

Claims 11 and 12 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. This rejection is moot in view of the amendment of these claims.

Rejection – 35 U.S.C. § 102

Claims 1, 3, and 5-7 were rejected under 35 U.S.C. § 102(b) as being anticipated by Hamada, Agric. Biol. Chem. 47(6): 1167-1172. The claims have now been limited to glucans from strain FERM P18099. Hamada, page 1167, first col., lines 10-12 after the abstract,

indicate that the polysaccharide produced by the *Aureobasidium* strain of Hamada “differed from those produced by *Aureobasidium pullulans*”. Page 8 of the specification indicates that strain FERM P-18099 is a kind of *Aureobasidium pullulans*. Therefore, the Applicants submit that Hamada cannot anticipate the present claims as it is directed to an *Aureobasidium* strain different than that of the present invention. Accordingly, this rejection may now be withdrawn.

Rejection – 35 U.S.C. § 102

Claims 1, 3, 5, 6, and 8-12 were rejected under 35 U.S.C. § 102(b) as being anticipated by patent publication JP 06-340701 A to Watanabe et al. This document teaches *A. pullulans* strain IFO 4466, but not strain FERM P-18099. One would not immediately envisage strain P-18099 from this document. Moreover, the Applicants submit that one with skill in the art would expect that different *Aureobasidium* strains would produce glucans that are not identical, e.g., glucans with different biochemical structures or linkages, molecular weights, degrees of crosslinking, or different functional properties. This rejection may now be withdrawn in view of the amendment of the claims to glucans produced by strain FERM P18099 which are not taught by Watanabe.

Rejection – 35 U.S.C. § 102(b)

Claims 1, 3, 5, 6, 8 and 13 were rejected under 35 U.S.C. § 102(b) as being anticipated by patent publication JP 62-205008 A to Shinohara et al. (English abstract). Shinohara is generically directed to *Aureobacidium sp.* One would not immediately envisage strain P-18099 from this document and the Applicants submit that one with skill in the art would expect that different *Aureobasidium* strains would produce glucans that are not identical, e.g., glucans with different biochemical structures, linkages, acidic components,

molecular weights, degrees of crosslinking, or different functional properties. Moreover, as apparent from page 1167, col. 1, of the Hamada reference (mentioned above), not all *Aureobasidium* strains produce equivalent carbohydrates. Accordingly, this rejection may be withdrawn in view of the amendment of the claims to glucans produced by strain FERM P-18099 which is not taught by the cited prior art.

Rejection – 35 U.S.C. § 102(b)

Claims 1, 3, 5, 6, 8 and 14-15 were rejected under 35 U.S.C. § 102(b) as being anticipated by patent publication JP 06-146036 A to Hasegawa et al. (English abstract). Hasegawa is generically directed to microorganisms of the genus *Auerovacidium* (*sic*) and does not describe  $\beta$ 1,3-1,6 glucans. Applicants submit that one with skill in the art would expect that different *Aureobasidium* strains would produce glucans that are not identical, e.g., glucans with different biochemical structures, acidic components, linkages, molecular weights, degrees of crosslinking, or different functional properties. Moreover, as apparent from page 1167, col. 1, of the Hamada reference (mentioned above), not all *Aureobasidium* strains produce equivalent carbohydrates. Thus, the Applicants submit that this rejection is moot in view of the amendment of the claims to glucans produced by strain FERM P-18099 which is not taught by Hasegawa et al.

Rejection – 35 U.S.C. § 103(a)

Claims 1-4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over patent publication JP 06-340701 A to Watanabe et al., in view of Finkelman et al., Canadian Journal of Microbiology, 33(2): 123-127. The Applicants submit that this rejection may be withdrawn in view of the amendment of the claims to specify that the glucan is produced by strain FERM P-18099. This strain is not disclosed or suggested by the cited prior art. The

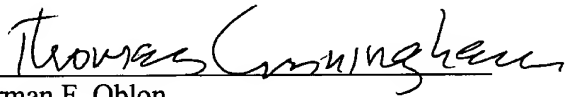
Official Action asserts that it would have been obvious to use any strain of *Aureobasidium*, including strain FERM P-18099, to make  $\beta$ -1.3-1.6-glucans. In order to rely on equivalence as a rationale supporting an obviousness rejection, the equivalency must be recognized in the prior art, see MPEP 2144.06 (col. 2, on page 2100-139, Feb. 2003 edition). However, the documents cited by the outstanding rejection do not establish that strain FERM P-18099 is recognized in the prior art as an equivalent to other *Aureobasidium* strains. Moreover, as apparent from page 1167, col. 1, of the Hamada reference (mentioned above), not all *Aureobasidium* strains produce equivalent carbohydrates. The characteristics of strain FERM P-18099 are extensively described in the disclosure starting at page 7, line 21. However, a strain with these same characteristics is not described by the cited documents. As there is no description of strain FERM P-18099 in the cited prior art, nor adequate description in the cited prior art that this strain is equivalent to any prior art strain, the Applicants respectfully submit that this rejection be withdrawn.

CONCLUSION

In view of the above amendments and remarks, Applicants respectfully submit that this application is now in condition for allowance. Early notification to this effect is earnestly solicited.

Respectfully submitted,

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